

Quiz Results

File: Trees-annotated

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Score: 2/10

Question 1: What is another term for a node in a tree?

- A. Root
- B. Edge
- C. Vertex
- D. Leaf

Explanation: A node in a tree can also be referred to as a vertex.

Question 2: What is a tree called if every node other than the leaves has two children?

- A. Complete Binary Tree
- B. Full Binary Tree
- C. Strictly Binary Tree
- D. Skewed Binary Tree

Explanation: A strictly binary tree is one where every node other than the leaves has exactly two children.

Question 3: What is a collection of trees referred to as?

- A. Branch
- B. Root
- C. Subtree
- D. Forest

Explanation: A forest is a collection or set of trees.

Question 4: Which tree traversal method visits the root node last?

- A. Inorder Traversal
- B. Preorder Traversal
- C. Postorder Traversal
- D. Breadth First Search

Explanation: In postorder traversal, the root node is visited after its left and right subtrees.

Question 5: In the context of trees, what does 'parent' refer to?

- A. A node with no children
- B. A node with two children
- C. The root of the tree
- D. The immediate predecessor of a node

Explanation: The parent node is the node directly above another node in the tree hierarchy.

Question 6: What is the term for nodes that share the same parent?

- A. Children
- B. Ancestors
- C. Siblings
- D. Descendants

Explanation: Nodes that share the same parent are called siblings.

Question 7: What is the name for a binary tree where all levels are completely filled except possibly the last level, which is filled from left to right?

- A. Full Binary Tree
- B. Skewed Binary Tree
- C. Complete Binary Tree
- D. Balanced Binary Tree

Explanation: A complete binary tree has all levels filled except possibly the last, which is filled from left to right.

Question 8: What is the name of a binary tree where all internal nodes have two children and all leaf nodes are at the same level?

- A. Skewed Binary Tree
- B. Complete Binary Tree
- C. Full Binary Tree
- D. Extended Binary Tree

Explanation: A full binary tree is a tree in which every node other than the leaves has two children.

Question 9: What is the purpose of a Binary Search Tree?

- A. To store data in a linear fashion
- B. To efficiently search, insert, and delete nodes
- C. To represent mathematical expressions
- D. To create a heap data structure

Explanation: Binary Search Trees are designed for efficient searching, insertion, and deletion operations.

Question 10: What is the definition of the 'height' of a tree?

- A. The number of nodes in the tree
- B. The number of edges in the longest path from the root to a leaf
- C. The number of internal nodes
- D. The number of leaf nodes

Explanation: The height (or depth) of a tree is the length of the longest path from the root to a leaf.